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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/534,103	Applicant(s) RANSOME ET AL.	
	Examiner Kenan Cehic	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>04/18/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because of "means" in line 2, "means" line 4.

Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

2. Claims 1-26 are objected to because of the following informalities:

For claim 1, the claim limitation "the computing device" in line 7 seems to refer back to "at least one computing device" in line 4. If this is true it is suggested to applicant to change this to --said at least one computing device--. Similar problems exist in claim 4 line 2, claim 15 line 2.

For claim 2, the claim limitation "reply message" in line 7 seems to refer back to "reply message" in line 5. If this is true it is suggested to applicant to change this to --said reply message--

For claim 2, the claim limitation “reply message” in line 7 seems to refer back to “reply message” in line 5. If this is true it is suggested to applicant to change this to --said reply message--

For claim 7, the claim limitation “the telephone network” in line 2 is the first occurrence. It is suggested to change this to --a telephone network--. Similar problems exist in claim 16 line 2.

For claim 12, the claim limitation “the hardware device” in line 14 is the first occurrence. It is suggested to change this to --a hardware device --.

For claim 13, the claim limitation “a predetermined period of time” in line 14 seems to refer back to “a predetermined time “ in line 7. If this is true it is suggested to change this limitation to --said predetermined time—or differentiate the limitation from the one in line 7. Similar problems exist in claim 14 line 9.

For claim 23, the claim limitation “the computing network” in line 4 seems to refer back to “a computer network“ in line 2. If this is true it is suggested to change this limitation to --said computer network —

Dependent claims are objected since they depend on objected claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 6, 11, 22 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claim 6, the claim limitation "query message" lacks antecedent basis. It is not known which query message the applicant is referring to. Similar problems exist in claim 11 line 2, claim 22 line 2.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 27, 28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

For claims 27, the claim limitation "computer program arranged, when loaded on a computing system" in line 1, is not a process, machine, manufacture, or composition of matter, or any new and useful improvement thereof because there is no physical structure/connection of medium recited in the claims. To overcome this rejection, it is suggested to change "computer program arranged, when loaded on a computing system" to - - computer readable medium encoded a computer program - -.

For claims 28, the claim limitation "computer readable medium providing a computer program" in line 1, is not a process, machine, manufacture, or composition of matter, or any new and useful improvement thereof because there is no physical structure/connection of medium recited in the claims. To overcome this rejection, it is

suggested to change “computer readable medium providing a computer program” to - -
computer readable medium encoded a computer program - -.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Sternagle (US 2002/0184376).

For claim 1, Stenagle discloses a system for monitoring (see Figure 8, 210) at least one computing hardware device (see Figure 8, 202) located on a computer network (see Figure 2, “Ethernet”, 202,212,210,214,216 “IP”), comprising, a testing means (see Figure 8, 210) in communication (see Figure 2, 210 and 212 with 202; and Figure 8 “ping”) with the computer network (see Figure 2, “Ethernet”, 202,212,210,214,216 “IP”) and arranged to send a first query message (see Figure 8, “Ping” and section 0052 lines 1-11 “PING...sent periodically”) to query the status (see section 0052 lines 1-11 “operation status of the cluster nodes”) of the at least one computing device (see Figure 8, “Ping”

and 202 and section 0052 lines 1-11 “cluster nodes 202” and section 0013 “cluster node stores a local database), and a second query message (see section 0052 lines 1-11 “PING....sent periodically”) specific to (see Figure 8, “Ping” and 202 and section 0049-0052 “Destination IP address...Destination Port Number...MAC address of the cluster node...PING...each cluster nodes”; ping message is specific for a certain node) the at least one computing device (see Figure 8, 202 and section 0052 lines 1-11 “cluster nodes”), wherein, if one of the first (see Figure 8, “Ping” and section 0052 lines 1-11 “PING...sent periodically”) and second query message (see Figure 8, “Ping” and section 0052 lines 1-11 “PING...sent periodically”) is not responded (see section 0052 lines 1-11 “cluster node fails to respond to a PING message”) to by the computing device (see Figure 8, 210), the testing means (see Figure 8, 210) registers an alarm condition (see section 0052-0053 “operation status....used...perform load sharing among cluster nodes” and section 0014 lines 1-17 “operational status...rerouting messages in the even of failure of one of the cluster nodes”)

6. Claim 2, 5 is rejected under 35 U.S.C. 102(e) as being anticipated by Duncan et al (US 2003/0169761).

For claim 2, Duncan discloses a hardware device (see section 0006 lines 1-22 “network management station”) arranged for monitoring (see section 0006 lines 1-22 “polling tests”) a plurality of computing systems (see section 0006 lines 1-22 “each device on the network....servers”) interconnected on a computer network (see section 0006 lines 1-22 “the network”), the device (see section 0006 lines 1-22 “network management station”)

comprising, means for sending a query message (see section 0006 lines 1-22 “sending...ICMP Ping requests....SMTP,NFS and DNS”) to each of the plurality of computingsystems (see section 0006 lines 1-22 “each device on the network....servers”), means for receiving a reply message (see section 0006 lines 1-22 “responsereceived”) from each of the plurality of computing systems (see section 0006 lines 1-22 “each device on the network”), wherein, if a reply message is not received (see section 0006 lines 1-22 “a response is not received”) within a defined period of time (see section 0006 lines 1-22 “predetermined time interval “timeout””), the hardware device (see section 0006 lines 1-22 “network management station”) registers an alarm condition (see section 0006 lines 1-22 “indicate that the monitored device is not operating correctly....problem with a link”).

For claim 5, Duncan disclose wherein the query message (see section 0006 lines 1-22 “sending...ICMP Ping requests....SMTP,NFS and DNS”) is a ping request (see section 0006 lines 1-22 “sending...ICMP Ping requests....SMTP,NFS and DNS”).

7. Claim 23 is rejected under 35 U.S.C. 102(b) as being anticipated by McBride (US 5,675,321).

For claim 23, McBride disclose an apparatus (see Figure 1, "1", "C") for the monitoring at least one computing device (see Figure 1 "2"), located on a computer network (see column 7 lines 28-35 "local area network" and Figure 1, 2a and column 2 lines 2 lines 55-65 "modem device...communicate with other computer"), comprising testing means (see Figure 1, C) in communication (see column 2 lines 2 lines 55-65 "modem

device...communicate with other computer" and column 4 lines 5-15 "connected to the telephone line...") with the computer network (see column 7 lines 28-35 "local area network" and Figure 1, 2a and column 2 lines 2 lines 55-65 "modem device...communicate with other computer") and arranged to determine (see Figure 2, 201-208) whether the at least one computing device (see Figure 1 "2") is connected (see column 2 lines 4-10 "connection to the telephone line to which the personal computer is connected") to the computing network (see column 7 lines 28-35 "local area network" and Figure 1, 2a and column 2 lines 2 lines 55-65 "modem device...communicate with other computer") , and, if the testing means (see Figure 1, C) determines that the at least one computing device (see Figure 1 "2") is not connected (see Figure 2, 201-208 and column 5 lines 51-67 "If dial tone is not present" and column 6 lines 1-45 " indicative of loss of bias voltage on the ...line...unauthorized movement of the personal computer...taking place") to the computing network (see column 7 lines 28-35 "local area network" and Figure 1, 2a and column 2 lines 2 lines 55-65 "modem device...communicate with other computer"), the testing means (see Figure 1, C) is arranged to send a message (see Figure 2, 209 "Query") to an agent (see column 6 lines 51-60 " D... message displayed...") associated with the computing device (see column 6 lines 51-60 " D... message displayed..."), requesting a return authorisation message (see column 6 lines 50-60 "authorization code must be entered") to indicate that the at least one computing device (see Figure 1 "2") is authorised to be disconnected (see column 6 lines 51-60 "authorization....terminate the theft... actions") from the network (see column

7 lines 28-35 "local area network" and Figure 1, 2a and column 2 lines 2 lines 55-65

"modem device...communicate with other computer").

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Duncan et al (US 2003/0169761) in view of Jorgenson et al (US 2004/0066747).

For claim 3, Duncan discloses the claimed invention as described in paragraph 6.

Furthermore, for claim 3, Duncan discloses not received within a defined period of time (see section 0006 lines 1-22 "predetermined time interval "timeout"").

Duncan is silent about:

As regarding claim 3, means to send a second query request to at least one of the plurality of computing systems, wherein, if a reply message to the second query request is not

received, the hardware device registers an alarm condition.

Jorgenson from the same or similar field of endeavor disclose a communication system with the following features:

As regarding claim 3, means to send a second query request (see Figure 3, 306) to at least one of the plurality of computing systems (see Figure 3, 306 "VPN Gateway"), wherein, if a reply message to the second query request is not received (see Figure 3, 308 "Yes", and section 0033 lines 1-15 and section 0022 lines 1-20 "response to the transmitted packet"), the hardware device (see Figure 3, 310,316,322,328) registers an alarm condition (see Figure 1, 108, 102,106,104).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Duncan by using the features, as taught Jorgenson, in order to methodically locate where the cause of the connectivity problem is and to troubleshoot the network (see section 0009-0012).

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Duncan et al (US 2003/0169761) in view of Jorgenson et al (US 2004/0066747) as applied to claim 3 above, further in view of Minami et al (US 2007/0253430).

For claim 4, Duncan and Jorgenson discloses the claimed invention as described in paragraph 8.

Furthermore, for claim 4, Duncan disclose means for receiving (see Figure 1, 102)

Duncan and Jorgenson are silent about:

As regarding claim 4, means for receiving an information message from a software application residing on the computing system, wherein the information message contains information pertaining to the identity of the computing device.

Minami from the same or similar field of endeavor disclose a communication system with the following features:

As regarding claim 4, an information message (see section 0308 "ICMP echo reply....ICMP echo...ICMP packet") from a software application (see Figure 3, 311,308,307,308,305) residing on the computing system (see section 0308 "source and destination IP address...source and destination Ethernet address"), wherein the information message (see section 0308 "ICMP echo reply....ICMP echo...ICMP packet") contains information pertaining (see section 0308 "source and destination IP address...source and destination Ethernet address") to the identity of the computing device (see section 0308 "source and destination IP address...source and destination Ethernet address").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Duncan and Jorgenson by using the features, as taught Minami, in order for packets to be routed correctly to the destinations.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sternagle (US 2002/0184376) in view of Nishizawa et al (US2002/0104002).

For claim 6, Sternagle discloses the claimed subject matter in paragraph 5.

Sternagle is silent about:

For claim 6, wherein the query message is encrypted.

Nishizawa from the same or similar field of endeavor discloses a system with the following features:

For claim 6, Nishizawa disclose wherein the query message is encrypted (see section 0068 lines 8-12 “encrypted query...encrypted query message”).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Sternagle by using the features, as taught Nishizawa, in order to be able to receive information while concealing a confidential retrieval condition (see section 0017-0019) and to in order to provide security measures for the query message to prevent authorized access to information.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sternagle (US 2002/0184376) in view of Nishizawa et al (US2002/0104002), as applied to claim 6 above, further in view of Nemirofsky et al (US 2007/0199031).

For claim 7, Sternagle and Nishizawa discloses the claimed invention in paragraph 10.

Sternagle and Nishizawa are silent about:

As regarding claim 7, query message is sent via the telephone network.

Nemirofsky from the same or similar field of endeavor disclose a communication system with the following features:

As regarding claim 7, Nemirofsky discloses a query message (see claim 13, “query”) is sent via the telephone network (see claim 13, transmitting....telephone network”).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Sternagle and Nishizawa by using the features, as taught by Nemirofsky, in order to be able to send queries to a destination when a network fails or when the destination is only reachable via a telephone network.

12. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sternagle (US 2002/0184376) in view of Nishizawa et al (US2002/0104002), as applied to claim 6 above, further in view of Galasso et al (US 6,374,302).

For claim 8, Sternagle and Nishizawa disclose the claimed invention as described in paragraph 10.

For claim 8, Sternagle and Nishizawa are silent about:

As regarding claim 8, requesting means for requesting an authorisation code from an agent.

Galasso from the same or similar field of endeavor disclose a communication system with the following features:

As regarding claim 8, Galasso discloses requesting means (see column 3 lines 38-50 "master gatekeeper....NCP process") for requesting an authorisation code (see column 3 lines 38-50 "requests....authorization code") from an agent (see column 3 lines 38-50 "user").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Sternagle and Nishizawa by using the features, as

taught by Galasso, in order to provide control point between two zone gatekeeper and to provide a scalable, reliable and flexible IP telephone system (see column 3 lines 1-36)

13. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Duncan et al (US 2003/0169761) in view of Bradley et al (US 2003/0177222).

For claim 9, Duncan discloses the claimed invention as described in paragraph 6.

Duncan is silent about:

As regarding claim 9, wherein the alarm condition is communicated via a telephone network.

Bradley from the same or similar field of endeavor discloses a detection apparatus with the following features:

As regarding claim 9, wherein the alarm condition (see section 0017 "message") is communicated via a telephone network (see section 0017 "telephones the paging center...relays the message").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Duncan by using the features, as taught by Bradley, in order to provide a method when a problem is detected to notify an attendant for troubleshooting (see section 0004-0006).

14. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Duncan et al (US 2003/0169761) in view of Peterson (US 2005/0160335).

For claim 10, Duncan disclose the claimed invention as described in paragraph 6.

Duncan is silent about:

As regarding claim 10, wherein the alarm condition is communicated via an email message.

Peterson from the same or similar field of endeavor disclose a monitoring system with the following features:

As regarding claim 10, wherein the alarm condition (see section 0036 "notification message") is communicated via an email message (see section 0036 "returned....via email message").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Duncan by using the features, as taught by Peterson, in order to maintaining a state of error conditions and network testing and monitoring results and notifying those results to a second device (see section 0008-0012).

15. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sternagle (US 2002/0184376) in view of Levy et al (US 2007/0073873).

For claim 11, Sternagle discloses the claimed invention as described in paragraph 5.

Sternagle is silent about:

As regarding claim 11, further comprising logging means to log the response received to the query message.

Levy from the same or similar field of endeavor discloses a communication system with the following features:

As regarding claim 11, further comprising logging means (see section 0289 “logging device”) to log the response received (see section 0291 lines 1-5 “all measured ping times”) to the query message (see section 0289 “sent out a ping”).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Sternagle by using the features, as taught by Levy, in order to provide a report which indicates problems which can be sent to a network administrator (see section 0289) and to provide a latency estimation of a client on the network (see section 0019-0023).

16. Claim 12- 14, 27, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761).

For claim 12, method (see section 0017 “method...testing to identify a problem”) for detecting the absence (see section 0035 lines 1-20 “failure of pervious ping operations.....indicates ...system is not accessible through the internet”) of at least one of a plurality of computing systems (see Figure 1 ;124, 122,120,118,116, 102) interconnected on a computer network (see Figure 1, 122, 124), the method (see section 0017 “method...testing to identify a problem”) comprising the steps of, sending a first query message (see Figure 3, 300) to at least one of the plurality of computing systems (see Figure 3, 300 “Host system”), receiving a first reply message message (see Figure 3, 302 and section 0032 lines 1-10 “status information returned by the ping operation”) from the at least one of the plurality of computing systems (see Figure 3, 300 “Host system” and section 0031 and 0032 “status information returned by the ping operation”),

sending a second query message (see Figure 3, 306) in a format only recognisable by (see Figure 1; 112, 124, 122, 120, 118, 116, 102 and section 0013 "TCP/IP" and section 0022 "packet") the at least one of the plurality of computing systems (see Figure 1, 124, 122, 120, 118, 116, 102), receiving a second reply message (see Figure 3, 308, "NO" and section 0033 lines 1-15 "ping operation succeeded " and section 0032 lines 1-10 "status information returned by the ping operation"; ping returns an message if successful) in a format only recognizable (see Figure 1; 112, 124, 122, 120, 118, 116, 102 and section 0013 "TCP/IP" and section 0022 "packet") by the at least one of the plurality of computing systems (see Figure 1, 124, 122, 120, 118, 116, 102), wherein, if the second reply message is not received (see Figure 3, 308 "Yes", and section 0033 lines 1-15 and section 0022 lines 1-20 "response to the transmitted packet"), an alarm condition is raised (see Figure 3, 310, 316, 322, 328) by the hardware device (see Figure 1, 108, 102, 106, 104).

For claim 13, X discloses a method (see section 0017 "method...testing to identify a problem") for detecting the absence (see section 0035 lines 1-20 "failure of pervious ping operations.....indicates ...system is not accessible through the internet") of at least one of a plurality of computing systems (see Figure 1, 120, 118, 116) interconnected on a computer network (see Figure 1, 122, 124), the method (see section 0017 "method...testing to identify a problem") comprising the steps of, sending a first query message (see Figure 3, 300) to at least one of the plurality of computing systems (see Figure 3, 300 "Host system"), receiving a first reply message (see Figure 3, 302 and section 0032 lines 1-10 "status information returned by the ping operation") from the at least one of the plurality of computing systems (see Figure 3, 300 "Host system" and

section 0031 and 0032 “status information returned by the ping operation”), and, if no first reply message is received (see Figure 3, 302 “YES” and section 0032 lines 1-15 “pinging....failed” and section 0022 lines 1-20 “response to the transmitted packet”) , sending a second query message (see Figure 3, 306) to an agent (see Figure 3, 306 “VPN Gateway”) responsible for (see section 0033 lines 1-5 “gateway system associated with connectivity to the...internal host system”) the at least one of the plurality of computing systems (see Figure 1, 120,118,116), receiving a second reply message (see Figure 3, 308, “NO” and section 0033 lines 1-15 “ping operation succeeded “ and section 0032 lines 1-10 “status information returned by the ping operation”; ping returns an message if successful) from the agent (see Figure 3, 306 “VPN Gateway”) responsible for (see section 0033 lines 1-5 “gateway system associated with connectivity to the...internal host system”) the at least one of the plurality of computing systems (see Figure 1, 120,118,116),

wherein, if the second reply message is not received (see Figure 3, 308 “Yes”, and section 0033 lines 1-15 and section 0022 lines 1-20 “response to the transmitted packet”), an alarm condition (see Figure 3, 310,316,322,328) is raised by the hardware device (see Figure 1, 108, 102,106,104).

For claim 14, Jorgenson discloses A method (see section 0017 “method...testing to identify a problem”) for determining the absence (see section 0035 lines 1-20 “failure of pervious ping operations.....indicates ...system is not accessible through the internet”) of at least one computing device (see Figure 1, 120,118,116) on a computing network (see Figure 1, 122, 124), comprising the steps of, sending a first query message (see Figure 3,

300) via the computing network (see Figure 1, 122, 124) to the at least one computing device (see Figure 3, 300 "Host system"), awaiting receipt of a reply message (see Figure 3, 302 and section 0032 lines 1-10 "status information returned by the ping operation") from the at least one computing device (see Figure 3, 300 "Host system"), wherein, if the reply message is not received (see Figure 3, 302 "YES" and section 0032 lines 1-15 "pinging....failed" and section 0022 lines 1-20 "response to the transmitted packet"), a second query message is delivered (see Figure 3, 306) via an alternative network (see Figure 1, 122) to an agent (see Figure 3, 306 "VPN Gateway") associated (see section 0033 lines 1-5 "gateway system associated with connectivity to the...internal host system") with the computing device (see Figure 1, 120,118,116), and if the second query message is not responded (see Figure 3, 308 "Yes", and section 0033 lines 1-15 and section 0022 lines 1-20 "response to the transmitted packet") to, an alarm condition is raised (see Figure 3, 310,316,322,328) .

For claim 28, Jorgenson disclose computer program (see Figure 1, 110,112,114) arranged, when loaded on a computing system (see Figure 1, 102), to implement the method 12 (see above).

For claim 29, Jorgenson disclose a computer readable medium (see Figure 1, 102) providing a computer program (see Figure 1, 110,112,114) in accordance with claim 27 (see above).

Jorgensen is silent about:

As regarding claim 12-14, within a predetermined period of time.

Duncan et al from the same or similar field of endeavor discloses the pinging process:

As regarding claim 12 and 13, within a predetermined period of time (see section 0006

"ICMP Ping requests....response is not received in predetermined time interval").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Jorgenson by using the features, as taught Duncan, in order to provide a the widely used and accepted ping utility (see section 0006)

17. Claim 15, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761) as applied to claim 14 above, further in view of Minami et al (US 2007/0253430).

For claim 15, Jorgenson and Duncan discloses the claimed invention as described in paragraph 16.

Furthermore, for claim 4, Duncan disclose step for receiving (see Figure 1, 102)

For claim 16, Duncan disclose wherein the first query message (see section 0006 lines 1-22 "sending...ICMP Ping requests....SMTP,NFS and DNS") is a ping request (see section 0006 lines 1-22 "sending...ICMP Ping requests....SMTP,NFS and DNS").

Duncan and Jorgenson are silent about:

As regarding claim 4,means for receiving an information message from a software application residing on the computing system, whereby the information message contains information pertaining to the identity of the computing device.

Minami from the same or similar field of endeavor disclose a communication system with the following features:

As regarding claim 4, an information message (see section 0308 “ICMP echo reply....ICMP echo...ICMP packet”) from a software application (see Figure 3, 311,308,307,308,305) residing on the computing system (see section 0308 “source and destination IP address...source and destination Ethernet address”), whereby the information message (see section 0308 “ICMP echo reply....ICMP echo...ICMP packet”) contains information pertaining (see section 0308 “source and destination IP address...source and destination Ethernet address”) to the identity of the computing device (see section 0308 “source and destination IP address...source and destination Ethernet address”).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Jorgenson and Duncan by using the features, as taught Minami, in order for packets to be routed correctly to the destinations.

18. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761) as applied to claim 14 above, further in view of Nishizawa et al (US2002/0104002).

For claim 17, Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761) discloses the claimed subject matter in paragraph 16.

Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761) is silent about:

For claim 17, wherein the first query message is encrypted.

Nishizawa from the same or similar field of endeavor discloses a system with the following features:

For claim 6, Nishizawa disclose wherein the first query message is encrypted (see section 0068 lines 8-12 "encrypted query...encrypted query message").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761) by using the features, as taught Nishizawa, in order to be able to receive information while concealing a confidential retrieval condition (see section 0017-0019) and to in order to provide security measures for the query message to prevent authorized access to information.

19. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761) and Nishizawa et al (US2002/0104002) as applied to claim 17 above, further in view of Nemirofsky et al (US 2007/0199031).

For claim 18, Jorgenson, Duncan and and Nishizawa discloses the claimed invention in paragraph 18.

Jorgenson, Duncan and and Nishizawa are silent about:

As regarding claim , query message is sent via the telephone network.

Nemirofsky from the same or similar field of endeavor disclose a communication system with the following features:

As regarding claim 18, Nemirofsky discloses the second query message (see claim 13, “query”) is sent via the telephone network (see claim 13, transmitting....telephone network”).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Jorgenson, Duncan and and Nishizawa by using the features, as taught by Nemirofsky, in order to be able to send queries to a destination when a network fails or when the destination is only reachable via a telephone network.

20. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761), as applied to claim 14 above, further in view of Galasso et al (US 6,374,302).

For claim 19, Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761) disclose the claimed invention as described in paragraph 16.

For claim 19, Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761) are silent about:

As regarding claim 19, requesting means for requesting an authorisation code from an agent.

Galasso from the same or similar field of endeavor disclose a communication system with the following features:

As regarding claim 8, Galasso discloses requesting means (see column 3 lines 38-50 “master gatekeeper....NCP process”) for requesting an authorisation code (see column 3

lines 38-50 “requests....authorization code”) from an agent (see column 3 lines 38-50 “user”).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761) by using the features, as taught by Galasso, in order to provide control point between two zone gatekeeper and to provide a scalable, reliable and flexible IP telephone system (see column 3 lines 1-36).

21. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761), as applied to claim 14 above, further in view of Bradley et al (US 2003/0177222).

For claim 9, Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761) discloses the claimed invention as described in paragraph 16.

Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761) is silent about:

As regarding claim 20, whereby the alarm condition is communicated via a telephone network.

Bradley from the same or similar field of endeavor discloses a detection apparatus with the following features:

As regarding claim 20, whereby the alarm condition (see section 0017 “message”) is communicated via a telephone network (see section 0017 “telephones the paging center...relays the message”).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761) by using the features, as taught by Bradley, in order to provide a method when a problem is detected to notify an attendant for troubleshooting (see section 0004-0006).

22. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761), as applied to claim 14 above, further in view of Peterson (US 2005/0160335).

For claim 10, Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761) disclose the claimed invention as described in paragraph 16.

Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761) is silent about:

As regarding claim 20, wherein the alarm condition is communicated via an email message.

Peterson from the same or similar field of endeavor disclose a monitoring system with the following features:

As regarding claim 20, wherein the alarm condition (see section 0036 "notification message") is communicated via an email message (see section 0036 "returned....via email message").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Jorgenson et al (US 2004/0066747) in view of Duncan

et al (US 2003/0169761) by using the features, as taught by Peterson, in order to maintaining a state of error conditions and network testing and monitoring results and notifying those results to a second device (see section 0008-0012).

23. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761) in view of Peterson (US 2005/0160335).

For claim 21, Jorgenson and Duncan disclose the claimed invention as described in paragraph 16.

Jorgenson and Duncan is silent about:

As regarding claim 21, whereby the alarm condition is communicated via an email message.

Peterson from the same or similar field of endeavor disclose a monitoring system with the following features:

As regarding claim 21, whereby the alarm condition (see section 0036 "notification message") is communicated via an email message (see section 0036 "returned....via email message").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Jorgenson and Duncan by using the features, as taught by Peterson, in order to maintaining a state of error conditions and network testing and monitoring results and notifying those results to a second device (see section 0008-0012).

24. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jorgenson et al (US 2004/0066747) in view of Duncan et al (US 2003/0169761) as applied to claim 14 above, further in view of Levy et al (US 2007/0073873).

For claim 22, Jorgenson and Duncan discloses the claimed invention as described in paragraph 16.

Jorgenson and Duncan is silent about:

As regarding claim 22, further comprising logging means to log the response received to the query message.

Levy from the same or similar field of endeavor discloses a communication system with the following features:

As regarding claim 22, further comprising logging means (see section 0289 "logging device") to log the response received (see section 0291 lines 1-5 "all measured ping times") to the query message (see section 0289 "sent out a ping").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Jorgenson and Duncan by using the features, as taught by Levy, in order to provide a report which indicates problems which can be sent to a network administrator (see section 0289) and to provide a latency estimation of a client on the network (see section 0019-0023).

25. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over McBride (US 5,675,321) in view of Reps et al (US 6,070,190)

For claim 24, McBride discloses the claimed invention as described in paragraph 7.

McBride is silent about:

As regarding claim 24, reporting means arranged to provide historical information on return authorisation messages received by the apparatus.

Reps from the same or similar field of endeavor discloses a monitoring system with the following features:

As regarding claim 24, reporting means (see column 7 lines 65-67 "display means") arranged to provide historical information (see column 7 lines 65 through column 8 lines 5 "scalable measurements...availability and....time") on return authorisation messages (see column 7 lines 65 through 8 lines 5 "response") received by the apparatus (see Figure 2, 106, 204, 212).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of McBride by using the features, as taught by Reps, in order to provide a report responses for a monitoring period (see column 20).

26. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over McBride (US 5,675,321) in view of Reps et al (US 6,070,190) as applied to claim 24 above, further in view of Bhagwat et al (US 5,286,630)

For claim 25, McBride and Reps disclose the claimed invention in paragraph 25.

Furthermore McBride, disclose testing means (see Figure 1, "1", "C") determines (see column 2 lines 4-10 "connection to the telephone line to which the personal computer is connected") whether the at least one computing device (see Figure 1 "2") is connected (see column 2 lines 4-10 "connection to the telephone line to which the personal

computer is connected”) to the computing network (see column 7 lines 28-35 “local area network” and Figure 1, 2a and column 2 lines 55-65 “modem device...communicate with other computer”).

McBride and Reps are silent about:

For claim 25, configuration means arranged to vary the frequency.

Bhagwat from the same or similar field of endeavor disclose a monitoring apparatus with the following features:

For claim 25, configuration means (see column 2 line 20-45 “microprocessor”) arranged to vary the frequency (see column 2 lines 20-45 “increases the sample rate”).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of McBride and Reps by using the features, as taught by Bhagwat, in order to provide a means to control the sampling rate at which a quantity is measured in order to either save power of the measuring apparatus or to have a high enough resolution to detect small changes and notice them quickly.

27. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over McBride (US 5,675,321) in view of Reps et al (US 6,070,190), and Bhagwat et al (US 5,286,630) as applied to claim 25 above, further in view of Larson et al (US 2004/0073637)

For claim 26, McBride, Reps and Bhagwat disclose the claimed invention in paragraph 26.

For claim 26, McBride, Reps and Bhagwat are silent about:

For claim 26, receiving means arranged to receive information from the at least one computing device, the information including information regarding the status and configuration of at least one computing device

Larson from the same or similar field of endeavor discloses a monitoring system with the following features:

For claim 26, Larson discloses receiving means (see section 0002 lines 1-7 "management console") arranged to receive (see section 0002 lines 1-7 "receive") information from the at least one computing device (see section 0002 lines 1-7 "server systems....configuration information", the information including information regarding the status (see section 0002 lines 1-7 "status") and configuration (see section 0002 lines 1-7 "configuration") of at least one computing device (see section 0002 lines 1-7 "server systems").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of McBride ,Reps, and Bhagwat by using the features, as taught by Larson, in order to provide a convenient, flexible and secure sytem for management communications (see section 0007-0010).

Conclusion

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sternagle et al (US 2005/0157707)

Carll et al (US 4,654,640)

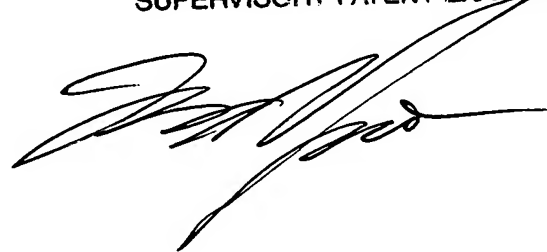
The above are referenced to show monitoring systems.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenan Cehic whose telephone number is (571) 270-3120. The examiner can normally be reached on Monday through Friday 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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KWANG BIN YAO
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read 'Kwang Bin Yao', is written over the printed name and title.

KC